

Request for Economic Stimulus Funds

Concept Proposal

Submitters (Name of Workgroup & Chair/Co-Chairs):

EKU College Readiness Group: Martin Brock, Dorie Combs, Sue Cain

Project Title: **Fostering College Readiness through School/IHE Partnerships**

Project Partners (Known or Anticipated):

- High school faculty in English, math, science, and social studies in area high schools in the Appalachian Math and Science Partnership
- Southeast South Central Cooperative
- EKU College of Education
- EKU College of Arts and Sciences
- EKU Extension Agents
- Center for Education Research in Appalachia

Project Background & Purpose (Justification for Project):

Students transition to college either from a high school setting, or as non-traditional students, with an expectation of professional success. Yet, universities seem to fail them at an unacceptable level. For example, it is astonishing that nation-wide, and in the context of this institution, student enrollment in the general chemistry sequence falls off within the first semester by levels of 50% or more. While many of these students will simply change majors, we feel this reflects a fundamental lack of communication between university expectation and their background preparation. Both literature and anecdotal observation suggest a correlation between mathematics background and college success in the sciences, but this may be causative in only a few cases. Other correlates, such as preparation in English, likely reflect motivation instead of preparation. It is more likely there is a chasm of expectations between schools and IHEs that requires a navigation many students cannot fathom. One problem is that college faculty are only nominally aware of the level of preparation provided by the high school experience. On the other side are the kids themselves along with their teachers, parents, and more broadly school administrators. Many students are coming to college without an appreciation of the quantum-jump in attention they will need to pay to their studies.

It is the purpose of this proposal to develop strategies to improve college success among incoming students. By working in a data-driven partnership among IHE arts and sciences faculty in the arts and sciences, high school teachers, and school district administrators, a variety of solutions, involving both colleges and schools, will be developed along with recommendations for their implementation. The model for such effective partnerships is the highly successful Appalachian Math and Science Partnership (AMSP), a collaborative effort among 8 KY colleges and universities and 38 school districts. The leadership team for this proposal includes extensive participation with AMSP. This experience will enable us to select dynamic personnel for this project from among the AMSP partners.

This proposal envisions a three-fold attack on the problem.

1) To assemble task forces in four critical areas: Math, natural science, English, and the social sciences, comprised of college faculty, high school teachers, and school district administrators. These groups will work in a partnership relationship to communicate from the schools to the colleges the nature and scope of standards-based education as practiced in KY schools; to communicate from colleges to schools the expectations of IHEs for first-year students; and to generate models of collaboration in which both IHEs and schools modify their roles in education. While the implication is for content areas to work together to solve a mutual problem, we appreciate that the issues are not discipline-specific. Science students (both natural and social) need robust mathematical skills that can be easily transferred, and all students must display proficiency in English. For this reason, we would expect the constitution of these task forces to always include math and English faculty.

2) To collect data in order to better understand the factors that affect student success in IHE programs. Without a meaningful research component, the task force conversations would lack needed depth. Fortunately, much relevant data already exists and the scope of this proposal will be first to mine it to seek trends, and then to collect additional data as the need arises. Because a variety of sociological factors may be at work in preventing college success, the data will be disaggregated on the bases of school location, economic indicators, parent factors, and other issues to be determined. In addition, an experimental population of students will be incorporated into this project: a 2-week session during the summers of 2010 and 2011 in which rising high school seniors

identified as at-risk will be engaged in academic preparation. These students will then be followed through their freshman year to gauge effectiveness of the program. Control students will also be identified and similarly followed.

3) To develop a standards-based curricular alignment between high schools and IHEs. It is apparent to IHE faculty working with schools that discipline-specific college standards have been loosely articulated at best. A number of attempts have been made to address college standards, but it is unlikely this proposal will be able to generate mutually acceptable lists. At the same time, school standards are well-articulated in KY and well-assessed, but without much attention paid by teachers to their structure, particularly with respect to vertical alignment. Nevertheless, there are implied standards IHE faculty utilize in practice, dictated, for example, by published texts and accreditation boards. What this proposal intends to accomplish is to examine these implied standards in each of several domains (math, natural science, English, and social science) with the intent of understanding how they relate to the high school standards, and what additional input will be necessary to help students transition to the college level.

In order to carry out the above items, the project team will assemble the task force groups during the summer, 09, with the expectation they will meet initially during the summer to receive instructions and begin their assignments. Data mining and collection will also begin in the summer with planning and initial stages of collection in order to provide the task forces with information for their work. This project is expected to last 24 months. Not described above will be project evaluation, and resources for this are available through AMSP. The specific results from this work will be made available to educators broadly through such web-based forums as the Kentucky Learning Depot and sites maintained by the Partnership Institute for Math and Science Education Reform and AMSP. In addition, conference presentations and publication in academic literature will be used for dissemination.

Project Team (Project Manager(s), Content Experts, Instructional Designers, etc.):

EKU College Readiness Group:

Martin Brock, Department of Chemistry, ECU

Dorie Combs, Department of Curriculum and Instruction, ECU

Sue Cain, ECU Transition and University Services, and CPE

Dr. Jack Herlihy, Director, Center for Education Research in Appalachia

Dr. William Thames, Director,
Southeast South Central Education Cooperative

Project Budget & Amount of Economic Stimulus Funds Requested

- Personnel, including project director, project coordinators, administrative assistant, graduate assistants, student workers, and faculty consultants: \$550,000
- Contract obligations, including school district partners (teachers and administrators), external evaluation, speakers: \$400,000
- Operating costs: 450,000
- Travel: \$100,000
- Participant costs: \$210,000
- Indirect costs: \$130,000

Total: 1,840,000

Budget details can be supplied on request.